

# Quick Fact Sheet

## Rubidium™ MG362x1A

### Low Noise RF/Microwave Signal Generator

9 kHz to 20/43.5/70 GHz

**Anritsu**  
Advancing beyond

Signal purity and frequency stability are essential distinguishing characteristics of a high frequency microwave signal generator. The Rubidium MG362x1A signal generator product line is built to deliver outstanding signal purity and frequency stability across a broad frequency range of 9 kHz to 70 GHz. The Rubidium MG362x1A delivers best in class output power even at high frequencies up to 70 GHz and beyond. With availability of industry standard interfaces and drivers for remote programming, Rubidium offers exceptional overall utility and value to users.

The Rubidium MG362x1A standard phase noise outperforms competition by a substantial margin. Two additional tiers of phase noise performance on top of the standard phase noise performance are offered as options:

- The low phase noise option (Option 3) delivers improved close in phase noise along with better frequency stability.
- The ultra low phase noise option (Option 13) provides improved phase noise at higher offsets.

For CW only applications between 2 GHz to 20 GHz, Rubidium provides an even lower phase noise than the ultra low phase noise option, allowing for another 3 dB improvement on a separate RF output port at the back panel.

All Rubidium MG362x1A standard models offer industry's highest output power outperforming nearest competition by 2 to 4 dB. Most signal generators in the market would be compelled to add a high power option in order to match Rubidium's standard output power, resulting in additional cost for users. Hence Rubidium standard output power offers the best value to its users compared to competition.

For users who require higher output power, Rubidium offers High Power Option (Option 15) which offers 2 to 4 dB higher power than any competitor. Higher output power is very helpful at microwave frequencies because it can overcome higher cable losses without any need for external amplifier.

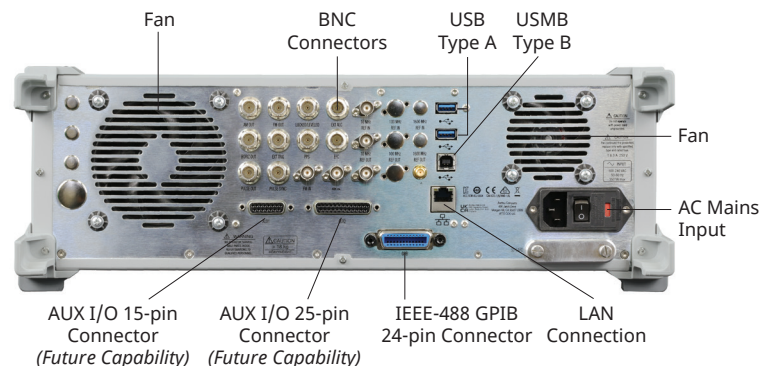
The low noise RF/microwave signal generator Rubidium MG362x1A offers atomic clock frequency stability with an internal rubidium frequency reference option. The exceptional frequency stability coupled with low phase noise performance makes the Rubidium MG362x1A the ideal choice for many metrology applications.

The Rubidium MG362x1A modulation capabilities include amplitude, frequency, phase, and pulse modulation to address simple to complex signal simulation requirements. It offers very comprehensive pulse generation capabilities to test pulsed radar systems. It also supports Anritsu's CW power sensors.

The Rubidium MG362x1A is housed in a 3U chassis with a 7-inch touch screen on the front panel and traditional keypad/dial interface. The Rubidium MG362x1A offers a high degree of configurability through a wide range of options to achieve optimum cost to function tradeoffs for the customers.

## Key Benefits and Features

- Broad frequency coverage from 9 kHz to 70 GHz, Operable to 72 GHz
- Industry leading phase noise and spurious performance over full frequency range
- Best in class output power even at high frequencies up to 70 GHz and beyond
- Atomic clock frequency stability with optional internal Rubidium frequency reference
- Pulse Radar signal simulation with comprehensive narrow pulse generation capability



Rubidium MG362x1A Signal Generator Back Panel

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#### Key Specifications

| Model No | Frequency Coverage | Output       |
|----------|--------------------|--------------|
| MG36221A | 9 kHz to 20 GHz    | K(m) 2.92 mm |
| MG36241A | 9 kHz to 43.5 GHz  | K(m) 2.92 mm |
| MG36271A | 9 kHz to 70 GHz    | V(m) 1.85 mm |

#### Phase Noise Options

| Option No     | Description   |
|---------------|---|
| MG362x1A-0003 | Low Phase Noise and High Stability  |
| MG362x1A-0013 | Ultra Low Phase Noise (requires Option 3)                                     |
| MG362x1A-0023 | Premium Phase Noise (requires Option 3 and 13)                                |
| MG362x1A-0033 | Phase Noise, Export Option (cannot be ordered with Options 3, 13, 23, and 56) |

#### Stable Time Base and High Power Options

| Option No     | Description  |
|---------------|--|
| MG362x1A-0015 | High Power Output                                    |
| MG362x1A-0066 | GNSS Atomic Clock Receiver (requires Option 3 or 13) |
| MG362x1A-0056 | Ultra Stability Time Base (requires Option 3 or 13)  |

#### Modulation and Sweep Options

| Option No     | Description  |
|---------------|--|
| MG362x1A-0006 | Analog Sweep, Frequency  |
| MG362x1A-0012 | Amplitude, Frequency, and Phase Modulation, Internal/External (requires Option 27) |
| MG362x1A-0026 | Pulse Modulation, Internal/External (requires Option 27)                           |
| MG362x1A-0027 | Modulation Hardware (requires Option 12 or 26, or both for functionality)          |
| MG362x1A-0029 | Front Panel Modulation Input/Output Access (requires Option 27)                    |
| MG362x1A-0030 | 600 Ohms External AM/FM Input Impedance (requires Option 12 and 27)                |

#### Rack Mount Options

| Option No     | Description                             |
|---------------|---|
| MG362x1A-0001 | Rack Mount with Slides                  |
| MG362x1A-0011 | Rack Mount without Slides (Shelf Mount) |